

EPTC
upgrades

Archaeological
discovery

Leadership
Summit

Safe winter
travel

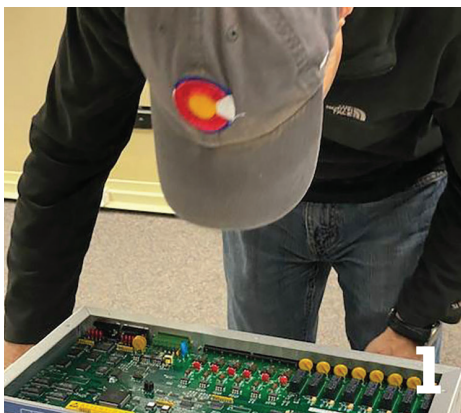
• CLOSED • **Circuit**

WESTERN AREA POWER ADMINISTRATION

NOVEMBER 2021

**Leadership
and
partnership**





CLOSED Circuit

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Meter and Relay Craftsman Apprentice *Joseph Maher* assists in the upgrades to the Electric Power Training Center Miniature Power System.

EPTC reflects on MPS upgrades

Story and photos by Leah Huff

In 2018, the Electric Power Training Center initiated an upgrade to its Miniature Power System. Prior to this, upgrades had not been performed in more than a decade and, with an increase in students during that time, this was overdue. In July 2020, the upgrades were finally completed, bringing the EPTC more in line with the current transmission landscape.

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The upgrade project succeeded in July 2020, after a number of pandemic-related delays and other obstacles.

The EPTC conducts training courses specific to the Bulk Electric System, covering power generation, transmission and interconnected system operations. The upgrades had been a long time coming.

Electrical Engineer **Joseph Liberatore** described the project as, “The removal of older technology to showcase variants of WAPA’s Digital Control System standard. An automation controller has been added to further expose students to modern substation configurations.”

The outdated equipment that was replaced is currently being phased out by WAPA. The new system can also be configured to assess cybersecurity issues.

Planning ahead

Upgrades of this magnitude required extensive planning.

“The project replaced old Wonderware controls driving Modicon equipment to operate a 230-kilovolt three-breaker ring,” Liberatore explained. “Duplex panels were

replaced with simplex panels employing a DCS design, utilizing Schweitzer protective relays in configurations that reflect WAPA’s current standard and possible future designs.”

The planning started with project support and initial design discussions, followed by funding confirmation.

Design came next, which was critical to laying out the MPS’s new Wolf Creek simulated switchyard. The final phases included delivery of parts, installation and commissioning, all of which were planned around the MPS’s use by students, minimizing impact to instructional classes.

Many employees were involved in the development of the EPTC’s MPS upgrade.

Liberatore led the installation and commissioning, with collaboration from many others. Electrical Engineer **David Fox** designed the project. Electrical Engineer **Josh Moyers** was responsible for protection settings. Electrical Engineer **Knut Aakhus** facilitated switchboard procurement.

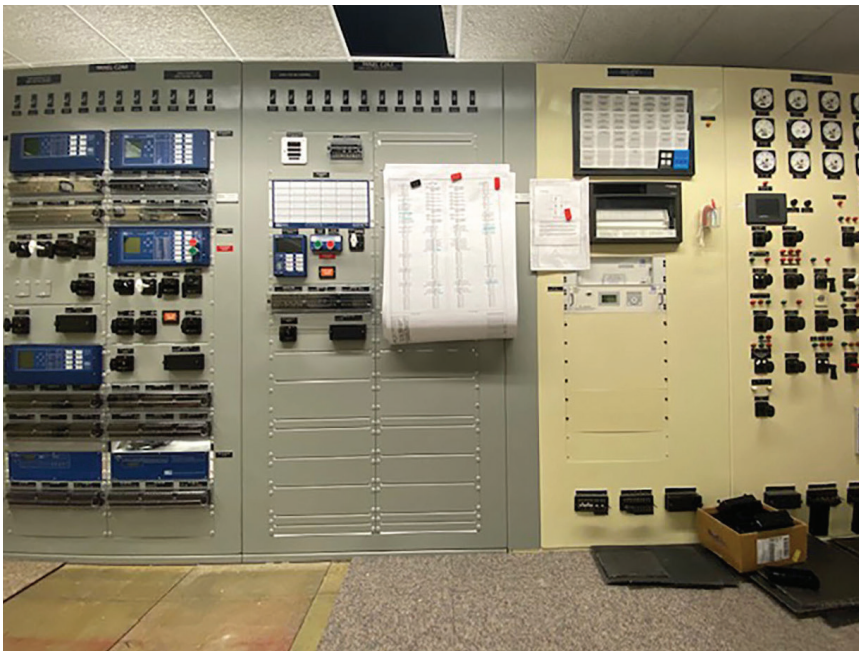
Making progress

The upgrades were made successfully, but – mainly as a result of the pandemic – the project faced its obstacles.

Delays in panel delivery occurred during the 2019 holiday season. This was coupled with construction limitations due to class instruction and the shift to maximum telework in early 2020.

“Small, custom retrofit projects, like Wolf Creek, tend to present unique challenges in terms of scoping, scheduling and getting the best value from manufacturing contractors,” said Aakhus. “This is because there are a lot of little uncertainties and all the usual boilerplate solutions don’t apply. But with good cooperation and communication between procurement, design, contractors and EPTC stakeholders, those challenges were surmountable.”

“The biggest hardship was integrating this new panel and the associated relays with the existing system,” remembered Meter and Relay Craftsman Apprentice **Joseph Maher**. Maher and Electronic Integrated Systems Mechanic Apprentice **Mitchell Trounce** worked hard on the project



Upgrades were initiated in 2018 with the intention of providing enhanced training that would more effectively prepare industry professionals for what they would find in the field.



Electrical Engineer **Joseph Liberatore** led the installation of the upgrades and was one of many employees involved with the project.

during the early stages of COVID-19, taking care to apply all necessary safety protocols while doing so.

The complexity of the project and the obstacles encountered meant that the Wolf Creek upgrades were not completed until summer of 2020.

"I'm relieved to have it done and excited to roll out additional learning opportunities for our primary audiences: the Bureau of Reclamation, the Army Corps of Engineers and WAPA," said Liberatore. "I want to offer a huge thanks to all WAPA employees and contractors who had a hand in this project, and to Pacific Northwest National Laboratory for contributing funds as part of a cybersecurity initiative."

The funds from PNNL were awarded to WAPA after a team from the laboratory used the MPS to collect cybersecurity data, with the intention of enhancing the facility to further the research. The EPTC received around \$80,000 to purchase Schweitzer relays and communication equipment.

"It's great to look back at this project now that it's completed and to think about the training that will take place at the EPTC using this upgraded Wolf Creek System," added Maher. "I'm always happy to provide help to the EPTC, as they do a great job of educating our industry's workforce."

"I'm relieved that we were able to come to a completion on the project during the pandemic," said Trounce. "I enjoyed working with Joe Liberatore on this project, as he was very helpful and great company. And I look forward to helping the EPTC folks in the future if it calls for it."

Since the project's completion, EPTC instructors and staff have been learning the new upgrades and additional features, between teaching virtual instructor-led trainings and as office visits permit during the pandemic. Instructors have already started to work it into the classroom curriculum.

Seeing the benefits

The completed project adds instructional value to students and provides a degree of flexibility to future research initiatives.

The Wolf Creek upgrades showcase variations of WAPA's DCS standard, allowing for realistic evaluation in a simulated environment.

The upgrades cost around \$450,000, and exposing students to modern substation equipment provides immeasurable benefits to students and the EPTC.

This project will assist in future learning opportunities that continue

to improve WAPA's premiere training facility. □

Note: Huff is an administrative analyst who works under the Cherokee Nation Strategic Programs contract.

Thanks to all!



The EPTC thanks the many employees who dedicated their time, energy and resources to completing these upgrades safely and successfully.

- Sponsorship, administration and support: **Knut Aakhus, Kyle Conroy, Dan Hamai, Kevin Howard, Steve Yexley, Lisa Yuma**
- Budget: **Yolanda Valenzuela**
- Installation: **James Bonner, Kyle Conroy, Joe Liberatore, Tim Slater**
- Meter and Relay labor and support: **Rich Hanson, Joseph Maher, Robert Manders, Mitch Trounce**
- Information Technology support: Jim Ball and IT staff
- Other support: **Scott Pierson, Randy Sullivan**

DSW partners with CAISO to benefit customers



O

n Sept. 15, Desert Southwest signed an implementation agreement with the California Independent System Operator to participate in the

Western Energy Imbalance Market. This was a decision that had been around 16 months in the making, and it was made once DSW had determined that joining would provide significant benefit to the region and its customers.

“The overall DSW Energy Imbalance Study concluded that CAISO and the Western EIM provided the best combination of benefits and customer preference.”

The decision stemmed back to the summer of 2019, when customers Arizona Electric Power Cooperative, Central Arizona Water Conservation District and Southwest Public Power Agency suggested that DSW study available market options.

WAPA employees from various programs – including Power Marketing, Information Technology and Power Operations and Transmission Services – worked together to do exactly that, comparing both the projected benefits of and costs associated with market opportunities to determine which market best suited DSW.

For the benefits study, WAPA collaborated with customers, the Bureau of Reclamation, Argonne National Laboratory and Energy and Environmental Economics on modeling projected loads, generation and transmission to feed into simulated dispatches for each market. For the cost study, employees worked with Utilicast to compile a list of gaps relative to current operations when compared to market operations.

After a nearly two-year process, the overall DSW Energy Imbalance Study concluded that CAISO and the Western EIM provided the best combination of benefits and customer preference, and the collaborative study process allows the region to manage a complex market transition with a high level of customer support.

The agreement applies to DSW's Western Area Lower Colorado Balancing Authority and the region's

projects, including the generation resources in Boulder Canyon and Parker-Davis projects and the transmission systems of the Central Arizona Project, the PDP and the Pacific-Northwest-Pacific Southwest Intertie Project. Also included are the Arizona Electric Power Cooperative sub-BA, Central Arizona Water Conservation District, the Southwest Public Power Agency and DSW's other customers.

The decision follows other successful moves into alternative energy imbalance management options, including Sierra Nevada's move into the EIM and the Upper Great Plains-West, Colorado River Storage Project and Rocky Mountain region transition into the Southwest Power Pool Western Energy Imbalance Service.

"After more than two years of analysis and collaboration with our customers, our final region has selected its preferred route for energy imbalance management based on regional circumstances and customer needs," said Administrator and CEO **Tracey LeBeau** in her announcement. "Joining the EIM will support WALC's ability to meet regulatory requirements for reliable operations, enhance real-time trading opportunities, provide efficient and affordable operations and address BA limitations and constraints due to the loss of bilateral trading partners to market constructs."

"I appreciate the thoughtfulness that went into their decision and look forward to working together to create additional economic and environmen-

tal value for their constituents and the broader EIM community," said CAISO President and CEO Elliot Mainzer.

The Western EIM footprint currently includes portions of Arizona, California, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming, and extends to the border with Canada. By 2023, the Western EIM will have 22 entities representing 84% of the demand for electricity in the Western Electric Coordinating Council.

"I wish to extend my sincere appreciation to all those involved in the study effort for their time, flexibility and dedication in this important matter," said LeBeau. "Now we begin the significant work of preparing, testing and moving into the EIM, which I am confident will also be successful."

DSW is targeting 2023 for implementation.

"We continue to explore other market and market-related efforts in the Western Interconnection, all with the goal of preserving and strengthening the value of WAPA and our customers," LeBeau concluded. "It is vitally important we continue to build on our historic successes as we navigate the changing environment and meet our obligations to customers and the nation." □

For more information about WAPA's exploration of market options, visit wapa.gov, The Source, Key Topics, Markets



Liaison supports Tribal customers



In late June, Senior Vice President and Chief Administrative Officer **Jennifer Rodgers** announced that Desert Southwest and the Colorado River Storage Project Management Center partnered with the Office of the CAO to support a temporary Tribal liaison detail. Financial Manager **Ethel Redhair** stepped in to fill the role, and her detail ended in September.

Redhair joined WAPA in 2007, after serving in various roles in the Department of the Interior's Office of the Special Trustee for American Indians, Field Operations. She partnered with Tribes across the Southwest and West to support management of Tribal trust accounts and serve as the point of contact between Tribes and the DOI and Bureau of Indian Affairs.

"While on this detail, Ethel will perform a baseline assessment of WAPA's current Tribal liaison efforts and develop recommendations for moving the program forward, to ensure WAPA is providing excellent support and consultation to our Tribal customers and partners," Rodgers said in her announcement.

Closed Circuit sat down with Redhair to discuss her experience during the detail.

Tell us about your background in Tribal relations.

Before WAPA, I processed financial accounting transactions for 12 regional offices and their respective field offices, performed portfolio management for 73 Native American Tribes and provided beneficiary trust service for Tribes and individual

members regarding their trust assets. I also performed electric utility accounting for a federal utility.

Before my federal career, I was an auditor with the Navajo Nation. I performed oil, gas and coal royalty and tax audits for leasing and business activities on the reservation.

I came to WAPA in 2007 as the DSW financial manager. I have been working here for 14 years, managing DSW's accounting, budgeting and alternative financing programs for the region.

What about this particular detail opportunity appealed to you?

I am strong believer in being a student of the business. This detail provided me with the opportunity to gain new knowledge about this program and obtain personal and professional growth at the same time.

Being a certified public accountant, I devoted my career to jobs within finance. Accepting this detail challenged me to broaden my knowledge, quickly learn a new program and gain experience from various people, organizations and situations.

What were your responsibilities as Tribal liaison?

I served as the Tribal liaison for DSW, CRSP MC and Headquarters, creating partnerships and relationships with Tribes, staff and stakeholders. I also served as WAPA's representative on the Department of Energy's Tribal energy initiatives.

Additionally, I had the opportunity to work with all of the regions in the newly created Government-to-Government Community of Practice group, where much information and knowledge is shared among the members and competence is gained.

What can you tell us about the importance of WAPA's Tribal customers?

Within WAPA's footprint, there are many Tribes with whom we do business. Providing excellent customer service is important, and we ensure direct connection between our customers and our business. This cus-

tomers service represents our brand, image, mission and core values. After all, our customers expect high-quality service.

In order to be successful, we need to provide excellent service to our Native American communities. This includes regular outreach as well as successful consultations on WAPA's activities, including Operations and Maintenance, capital projects and applicant interconnects.

We also need to promote successful partnerships on renewable initiatives on Indian lands and coordinate Tribes' technical service resources with our customers.

Is there anything in particular that you were proud to accomplish in this role?

In September, WAPA hosted a series of listening sessions with the Native American Indian Tribes within WAPA's territory, with each region holding meetings. We wanted to hear what our Tribal customers have to tell us regarding our relationships, coordination concerns and what WAPA can do better to serve the Tribal communities.

The listening sessions are shared with the DOE and the feedback will be used to advise the department's action plan, develop Tribal consultation policy and improve Nation-to-Nation relationships.

Do you have anything to add in conclusion?

Give yourself a chance to try something new.

This detail has given me an opportunity and a challenge to learn something totally new. I jumped in with both feet and connected with people that I normally did not work with before. I appreciate their willingness to share their knowledge and their perspectives with me.

A lot of times, I was in unfamiliar territory and was challenged with solving the tasks at hand. My takeaway is that I expanded my business knowledge and gained professional growth. □



Portal migration increases security, performance

By Shelly Clark

In 2005, Sierra Nevada launched its SNR Customer Portal to communicate and share information with its energy and transmission customers. It was WAPA's first standalone customer portal. As both technology and the energy industry have evolved, the time had come for some change.

This summer, the SNR Customer Portal was migrated to the newer WAPA Portal, offering increased security and improved efficiencies for WAPA employees and customers.

Although there is still work to be done on the back end, users are already reaping the benefits of the migration.

"The migration has been seamless," said Power Marketing Advisor **Rosemary Jones**, who has used the portal since its creation. "It offers a more modern look and overall increased performance. It allows us access to a tremendous amount of critical data from customers every day, in a convenient way that saves us all lots of time."

Thinking bigger, wider

Although the development of the SNR Customer Portal was fairly groundbreaking, some Information Technology leaders at the time were

already thinking about building something with a WAPA-wide focus in mind.

"We had a vision of a single portal," said Vice President of IT – Power Management and Marketing **Brett Fisher**. "We knew creating and maintaining multiples would not be ideal."

At that time, the organizational structure of IT didn't lend itself to accomplishing this vision. It wasn't until 2015, when the IT Evolution happened—bringing IT together into one organization, rather than having IT leadership report up through regional managers—that it became more feasible to tackle.

"There are pages of documentation outlining the benefits of the IT Evolution and the projects that have been enabled because of it," said Senior Vice President and Chief Information Officer **Mike Montoya**. "This project is a prime example of how it's since become the norm to more efficiently and strategically provide standardized solutions across WAPA, offer increased support to our business partners and reduce risk."

In 2017, WAPA launched the long-envisioned WAPA Portal. Though there were plans to migrate the SNR Customer Portal, it wasn't an immediate priority.

"Lots of our work in IT is planned around lifecycle replacements, and the SNR Customer Portal was running reliably," said Fisher. "There simply wasn't urgency to make a change."

Additionally, market activities were shaping up across the West, and resources were dedicated to those initiatives.

Timing is everything

After more than 15 years of use, and four years after the launch of the WAPA Portal, the SNR Customer Portal was nearing the end of its life.

"The software framework it was built on was no longer being supported or maintained, making it vulnerable to security breaches," said IT Specialist **Ray Churgovich**, who works under the Innovative Management Concepts contract. "The SNR Customer Portal software was based on ancient frameworks that were very much in need of a complete replacement and rewrite."

The hardware on which it was running was also past its end-of-life. It was uncertain if the system would survive long enough for it to be migrated into the larger WAPA Portal, a project that was scheduled to take place six months later.

"We agreed we couldn't wait any longer and prioritized the migration to protect against security breaches and hardware failure," said Supervisory IT Specialist **Mark Phelps**.

Moving the project up six months meant that it had to happen concurrently with multiple other high-priority markets-related projects. The backend, technical components of the migration were also tedious, involving

moving apps and building a new security model.

"Tons of customer information needed to be tracked down, verified, updated and input," explained Phelps. "But the effort was well worth it, considering the increased security and enhanced access management and visibility the WAPA Portal offers."

For example, in the SNR Customer Portal there was no mechanism to force password changes at regular intervals. When a change was needed, it was done manually via communication with the WAPA IT Call Center. The WAPA Portal has built-in mechanisms to automate password changes.

"It's almost difficult to remember what technology and security were like all those years ago," said Fisher. "Times have changed. There are standard practices we expect now and we needed the portal to reflect that."

Migrating the portal offers increased functionality.

"Additionally, it provides our customers an experience they've come to expect from other entities with whom they do business," Phelps said.

Next steps

The migration of the SNR Customer Portal was a big milestone in a much larger project. There's an SNR Employee Portal, too, and some Operations applications that still need to be migrated.

"The final touches and clean up for the larger migration project are expected to take another year," said Phelps. "But for now, we are taking a moment to celebrate the increased security, efficiencies and visibility the migration offers."

"IT spent a great deal of time gathering requirements from us to make sure our needs were met," Jones said. "I appreciate their efforts and our partnership. Mostly though, I am thrilled with the product—and its improvements over time—and how it serves Marketing, Operations and WAPA's customers." □

Note: Clark is an administrative assistant.

Wait, what's a portal?

If you work outside of Power Marketing or Power Operations, you may be asking yourself, "What are these portals we're talking about?" Power Marketing Advisor **Rosemary Jones** has used the SNR Customer Portal since the beginning. She shared the following explanation of what it is and how it helps WAPA and customers:

"The portal offers a place where WAPA and customers can exchange data regarding energy scheduling of firm electric service or power operations data on tag discrepancies. This allows us to gain efficiency by not having to call customers or manually exchange and enter this energy key data.

"This used to require multiple back-and-forth phone calls to all customers. With the portal, now we only need to pick up the phone when there's an issue. It was an absolute game changer to how we did business.

"The portal also allows the automation of data flow into downstream systems without human intervention. These exchanges of information—now automated—start the slew of processes happening behind the scenes and ultimately help with the all the balancing that makes WAPA's whole system hum."



Mini Summit explores leadership styles

By Sarah P.

With the onset of COVID-19, strong leadership skills have never been

more in demand; organizations around the world require agile responses to evolving short- and long-term needs. The Leadership Development Program aims to equip WAPA with competencies that support such needs. On Oct. 6-7, the LDP hosted a virtual Mini Leadership Summit centered around the book *Mastering Leadership* by Robert Anderson and William Adams.

More than 200 of WAPA's team leads, supervisors and managers heard from speakers from The Leadership Circle, as well as Sacramento Municipal Utilities District CEO Paul Lau, motivational speaker Anita "AC" Clinton of Be Great Global, Equal Employment Manager **Charles Montañez** and Leadership Development Program Managers **Brittanie Paquette** and **Troy Steadman**. Administrator and CEO **Tracey LeBeau** provided opening remarks.

The Mini Summit focused on leading in a hybrid world and the need to incorporate *Mastering Leadership* principles called Creative and Reactive Leadership, also known as Self-Authored and Other-Authored Leadership.

Adams categorizes Reactive Leaders as other-authored, which is typically a more internal view of leadership. Reactive Leaders aim to protect themselves from criticism instead of taking risks to engage productively with an organization's mission and vision. Adams describes them as capable of getting good results, but their approach impacts leadership effectiveness by emphasizing cautionary measures instead of insightful risk assessment and acceptance.

Imagine the announcement of lockdowns and employers' need to provide rapid re-

sponses in March 2020, which was something we had never seen before. How difficult might it be to maintain a reactive leadership mindset when new policies create confusion, anger and fear, and you can't answer your employees' questions? How can a leader reprogram their instinctual response for self-preservation?

Reactive Leadership may have individuals thinking, "I can't predict the reactions of my peers if I propose this route, and I have another crisis to deal with elsewhere, so I won't try."

Mini Summit attendees were asked to consider situations in which they've employed reactive strategies and discuss them with their peers to better understand what kinds of situations might enable this mindset, which is half the battle.

Learning Creative Leadership was the other half. Anderson and Adams have identified five categories that define Creative Leadership, which concentrate on the successful management of people and processes: achieving, systems awareness, authenticity, self-awareness and relating.

Achieving is the ability to create a vision, the pathway to success and the ability to get results. A leader who is "systems aware" can understand and navigate a complicated organization system and leverage its design to achieve higher performance standards. Authentic leaders act with integrity and boldly share opinions, even when risky. Self-awareness is the ability to understand one's own strengths and weaknesses. Relating refers to the ability to build, collaborate with and develop teams.

Creative Leadership has individuals thinking, "This is out of my comfort zone, but I can do this and, as a result, develop my identified weaknesses." Or, "I have a lot on my plate. I'll ask a peer who is strong in this subject matter for assistance with this project."

These individuals are key contributors to groups, highly adaptable and unafraid to think outside the box and take risks that produce results and move an organization forward.

The difference between the two is that, in a Reactive Leadership, the techniques and skills we employ as leaders have us moving from one crisis to another mindset, seeking equilibrium between reality and beliefs, with nothing changing in between. A Creative Leadership mindset has us seeking and pursuing an overall vision, adapting and evolving from those beliefs as they relate to our reality.

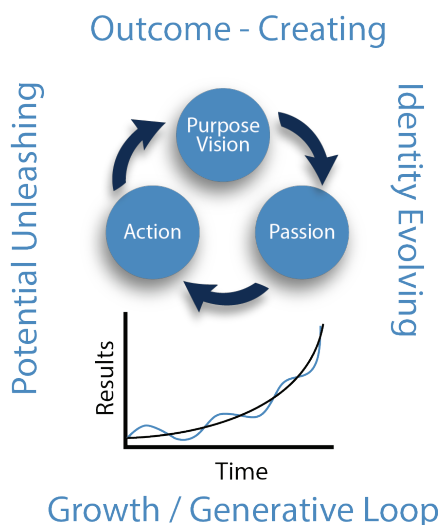
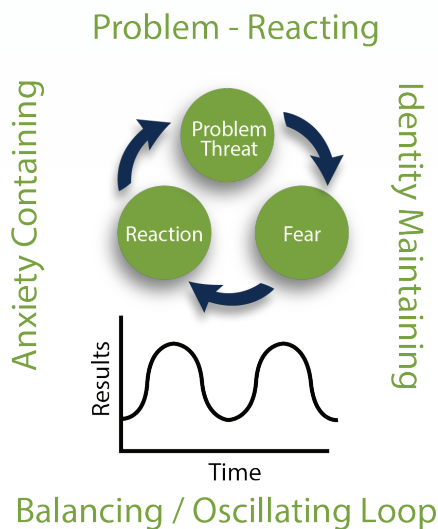
Anyone can self-reflect on their leadership mindset at any level of the organization by identifying leadership qualities witnessed from the best leaders one has encountered personally, why those qualities were important and why they may be important to their respective teams.

Chief Diversity Officer of The Leadership Circle Aaronde Creighton led Mini Summit attendees through Creative Leadership breakout sessions on these exact topics. All employees are encouraged to explore these individually or with fellow colleagues; they can be great exercises for anyone to try.

Making the transition from a Reactive to a Creative Leadership mindset explores the questions, "What type of leader does my organization need me to be right now?" and "What will it take for me to become that leader?"

Attendees worked to identify individual paths to success for themselves and WAPA by considering these questions. Oftentimes this journey pulls individuals from acting as a leader worried about others' expectations and in constant response mode – Reactive – to a leader with a confident, strategic and authentic attitude – Creative.

The Mini Summit is just one example of the resources WAPA offers to foster a collaborative and productive workplace with effective leaders. The LDP is committed to trainings that are instantly transferrable to WAPA's organizational needs by providing additional monthly webinars and other programs on applicable leadership competencies. □



Contact leadershipdevelopment@wapa.gov for questions or more information on upcoming events.



Note: The author is a leadership development specialist.



Drive safely this winter

By Paul Robbins

Whether it's rain, snow or icy roads, driving in winter can be challenging. Keep the following strategies in mind to help prepare for the hazards of winter driving.

Check your vehicle

Get your vehicle tuned up and request a comprehensive inspection for damaged or leaky hoses, worn wiper blades, a low battery, mechanical issues and possible parts replacement.

Be sure coolant levels are maintained and the windshield wiper reservoir is full and not cracked. Check that all internal and external vehicle lights are working properly.

Have the tires inspected, and periodically check your tire pressure and tread depth throughout the winter. You can easily check tread depth with a penny. Insert the coin with Lincoln's

head upside down into the tire tread. If his entire head is exposed, then it's time for new tires.

Take a test drive

After an early snowfall, take your vehicle to an empty parking lot and reacquaint yourself with how it responds during turns and stops.

Understand what kind of brakes you have, whether standard or anti-lock, and how to use them effectively. This test drive can also be a hands-on learning experience if you have a young driver in the family.

Stock up!

Keep a few items in the vehicle for emergencies, including an ice scraper, small shovel, jumper cables, a flashlight and blankets.

Pack a container of rock salt, sand or cat litter that can be spread under the tires if you get stuck in the snow. When taking a longer trip, be sure to bring food, water, a cellphone with an extra battery and any medications you may be taking.

Know how to handle being stranded

If you ever get stranded on the side of the road, identify your vehicle with

bright markers or flashers, keep the dome light on and stay in the car.

To avoid carbon monoxide poisoning or asphyxiation, clear snow away from the exhaust pipe and run the vehicle for short periods, using its heater to keep warm. Never keep the engine running for long periods of time with the windows rolled up.

Watch for snowplows

The North Dakota Department of Transportation says that their snowplows weigh more than 29 tons.

Give plows plenty of space to operate. They produce snow clouds that reduce visibility, while obscuring roadway hazards and other vehicles. Don't drive beside a snowplow or into these clouds. It is best to stay behind them at a safe distance.

The plow driver has a limited field of vision. If you can't see their side mirrors, the driver cannot see you.

Plan ahead, avoid distraction

Protect yourself and others by planning ahead. Allow for extra travel time, be familiar with directions even when using a GPS and know the current road, traffic and weather conditions.

Stay alert and avoid distractions. Do not text or talk on the phone while driving. If you need to use the phone, pull over.

It's not always snow and ice

You might think that most winter accidents happen during snowy and icy conditions; however, according to the Federal Highway Administration, a majority take place in wet or rainy conditions. Hydroplaning and rear-end collisions are two major hazards when traveling on wet roadways.

Your vehicle loses traction and hydroplanes when a thin layer of water comes between the tires and the road. Depth of water, vehicle speed and tire tread depth are all contributors to this.

Help prevent hydroplaning by checking your tire tread depth and inflation, and slow your driving speed to safely meet road conditions. Turn off the cruise control and regulate your speed manually. If you do hydroplane,

stay calm, ease your foot off the accelerator and don't slam on the brakes; then, slightly turn into the direction of the slide until the tires regain traction.

Rear-end collisions account for approximately 40% of traffic accidents nationally. Most know about the "three-second rule" when following another vehicle; however, Nationwide Insurance suggests keeping eight seconds between you and the driver ahead when traveling in the rain.

Other contributors to rear-end accidents are distraction and rushing, so pay attention and slow down.

Adjust your driving

There are several ways to drive safely on snow or ice and most revolve around slowing down. Take more time for turns, lane changes and other general maneuvers. Slowing down and starting up on ice takes longer, so decelerate or accelerate gradually. When approaching a stop, start breaking sooner than normal to avoid sliding, and slowly accelerate to regain traction.

It is easier to stay in motion on ice than to start moving from a complete stop. When approaching a stoplight, if safe to do so, slow down enough that you can keep rolling until the light turns green.

Avoid stopping when traveling uphill; accelerate slowly before the grade and let it carry you up the incline. At the top, decelerate and proceed down slowly. This will work better than powering up hills, which causes loss of traction and tire spinning.

Finally, winter driving is hard enough without being under the influence of alcohol or drugs. Drive sober. Clear perception, motor skills and judgement will help keep you safer.

Be ready for the challenges of winter driving. Don't become a roadway statistic. □

Note: Information in this article is adapted from that provided by the National Highway Traffic Safety Administration and the American Automobile Association. Robbins is a technical writer who works under the Cherokee Nation Strategic Programs contract.

Watch yourself while walking!

Safe winter travel also includes walking. Slips, trips and falls continue to be major causes of workplace injury, and walking on ice and snow increases these hazards.



- **Be proactive.** The first line of defense after a storm is to clear ice and snow from foot-traffic areas and apply deicer.
- **Choose the right footwear.** Like a tire, your footwear should provide good traction. This includes shoes, boots or overshoes with reliable rubber treads.
- **Slow down.** Practice defensive walking. Slow down, watch out for others and take short steps so that you can react quickly to slips and traction changes.
- **Walk this way.** Concentrate on each step and preserve your body's center of balance by walking with your feet pointing slightly outward. Sustain this balance by keeping your feet under your body weight.
- **Lighten your load.** Don't carry a lot while walking on ice and snow. Concentrate on the path in front of you, not on how much you can carry.

Source: Occupational Safety and Health Administration



Facility closure leads to discovery of older site

Photos by Dave Kluth

In March 2019, Archaeologist **Dave Kluth** visited a WAPA communication site in Erhard, Minnesota, to perform a survey. This facility was no longer needed by the organization, but the process of dismantling it led to an unexpected discovery that has only been recently resolved.

The closure of a communication site in Erhard, Minnesota, led to a number of interesting archaeological discoveries.



Archaeologist Staffan Peterson assisted in the excavation of the site once it was clear that it warranted a deeper survey.



Archaeologist Dave Kluth draws the wall of a test unit as part of his survey. (Photo by Staffan Peterson)

“WAPA planned on removing all of the equipment and disposing of the property,” Kluth said, “but before that can happen, archaeologists have to make sure there are no cultural resources of any significance on that property.”

It’s a common process, with respect for cultural history at its core. Hypothetically, if WAPA removes facilities from a site of cultural significance, the site could be adversely impacted by whomever buys the property next. Therefore, cultural resource surveys – such as the one performed by Kluth – must be performed before a federal agency can divest the property.

“We want to avoid important sites being damaged or destroyed,” Kluth said. “So, when they told me that they wanted to dispose of this property, I went up and took a look at it. I did what’s called a ‘phase-one survey,’ basically going to a particular location and trying to identify if there are any cultural resources there, either historic or prehistoric evidence of human occupation at the site.”

Sure enough, during his survey of the property, Kluth found two large depressions in the ground, side by side.

“I could tell right away that this was evidence of a previous structure,” he said. “These were probably cellar pits beneath the floor. Whoever used the structure would store things in those pits, and now they just look like big depressions.”

Kluth examined the property more thoroughly, hoping to better understand what the structure might have been, and to perhaps find more evidence.

“What archaeologists understand is that when you find things on the surface, you want to know if there’s something below the surface,” he said.

Kluth moved on to “shovel testing,” which involves digging up soil and sifting it through a screen to see if any artifacts turn up.

“I dug three shovel tests, and I found artifacts on all three attempts,” he explained. “I found part of the stove, pieces of ceramic, some bottle glass and, kind of to my surprise, I also found some prehistoric artifacts.”

The more he looked, the more he found, including small flakes of stone that are left behind when stone tools are made.

“I also found what we call an expedient tool, which is a larger piece

of rock, and they chip the edge, kind of like a serrated knife,” he said. “They hold that rock in their hand and they can use it for scraping or cutting.”

He was able to date some of the artifacts, but not all of them.

“You can’t really date little chips of stone,” he explained. “You need to find an arrowhead or a hearth feature so you can get a radiocarbon date. But for a lot of historic artifacts, there are known dates for them. I had some window glass, I had some pottery, I had some nails, and these are all relatively datable.”

One useful clue came from the nails: they were square nails, or cut nails, which suggest that the structure was from the turn of the previous century.

“That kind of nail went out of style, but I found a lot of them,” he said. “Then I looked at the window glass and the thickness of that, and the bottle glass, and it was all kind of falling in the 1880-1910 range. That gives us a nice age range for identifying when the site was occupied.”

He also discovered some additional, smaller depressions, which could have been pit features. One was rectangular and, if the structure had indeed been a house, could have been a privy.

"So that was my phase-one survey," said Kluth. "We had a prehistoric site and a historic site, lots of artifacts and some pit features. I wrote the report and sent it in to the State Historic Preservation Office. They reviewed it and said, 'Before you dispose of this property, we want you to go back and take a look at these pit features and see what they are.'"

Kluth intended to do exactly that.

Unearthing the truth

Phase two involved returning to the site and excavating test units, which were to be set up at various locations to see if they could find anything significant enough to warrant further investigation. This took place in July, and Kluth brought some extra help: Land Surveyor **Corey Diekman** and Archaeologist **Staffan Peterson**.

"Staffan came down from our Billings office to help me excavate the site," he said. "We worked with Corey, who surveyed some of the surface features for us and put in some elevations on the site, so that we were able to do our work and keep a really good record of where we're digging, and of locations and elevations of artifacts and our test units. Archaeology is always a group effort."

What they found, however, turned out to be very little.

"We had hoped to find more than we did, but that's always the trick of archaeology," said Kluth. "You never know what you're going to find until you start digging."

The depressions in the earth that had seemed so promising at first turned out to be natural.

"We thought they would be cultural features, which would contain interesting artifacts that tell us more about the site," he explained. "Instead, we think that when they were clearing the area in order to put in the communication site, they cut down trees and took out the stumps and kind of left these shallow depressions."

Even the artifacts turned out to be less useful than he had hoped.

"We found mixed-up soil," he said. "There were historic artifacts mixed with prehistoric artifacts, which is



Excavating the site revealed both historic and prehistoric artifacts. Note the iron wheel in the wall.

never good. You lose the context of those artifacts when they are mixed together. Unfortunately, that's the way archaeology goes sometimes. We had hoped for better, but what we got was a very mixed and disturbed site. There could be something interesting here to somebody, but nothing that's eligible for listing in the National Register of Historic Places."

As far as that "something interesting" goes, Kluth ended up doing some additional – but less dirty – digging, and was able to piece together quite a bit about the site and its history.

"I was able to do some research at the county historical society, and basically learn about the people who lived there in the historic part of the site," he said. "We think it was a small house that was occupied by a young family during the mid-1880s. They didn't spend very long there, maybe three or four years. It's possible that they had a number of children and it was a very small structure, so they figured it was too small to raise a family and decided to go elsewhere."

This information also helped him to learn more about many of the artifacts he had found.

"There were some artifacts that were burned, and melted glass and charcoal and things like that," he said, "so it is also possible that the house burned down or partially burned."

Kluth was able to learn about what happened to the family, as well. When they left the home on this site, they moved to Montana for a year or two and then made their way to California.

"We learned that from the census records and some of the old maps

that show the house location," he explained. "There were also some marriage records with that. If you piece the age of the map and the other records together, you get a sense of when the house was built and when the family moved there after they got married. Then it may have burned down, as the evidence seems to suggest, and we have records showing where they moved. That was interesting to figure out."

Kluth had high hopes for the site, which had evidence of both historic and prehistoric habitation – something referred to as a multicomponent site.

Unfortunately, he learned little about the prehistoric aspect of things.

"It seems to have been a very small campsite," he said. "We didn't find a whole lot of artifacts or tools or anything. No features like hearths or a structure location or anything like that. That was a little bit underwhelming. We had hoped to find out who the people were who lived there prehistorically, the culture or group, maybe a time period. But we didn't find anything that would provide evidence."

After evaluating everything he could about the historic and prehistoric nature of the site, he concluded that it was not significant enough to justify more work.

Ultimately, though, that serves as a reminder of the importance of the work performed by Kluth and his colleagues across WAPA's regions.

"We can dispose of this location and be secure in the knowledge that, by us giving up this location, nothing of significance is going to be destroyed or disturbed because we are no longer there," said Kluth. "That's the reason we were there, to see if we needed to do more work or protect it further."

The surveys also offered a welcome bit of excitement for the archaeologist.

"WAPA is great at avoiding archaeological sites," he said. "We've got transmission lines and we interconnect with wind farms, and that kind of infrastructure is really good at going over or around sensitive areas, so as not to disturb them. It's not too often that we get to delve into an archaeological site and take a look around, so this was a lot of fun." □

First WAPA administrator passes away

Robert Louis McPhail, the first person to serve as administrator of Western Area Power Administration, passed away Sept. 28 at the age of 85.

McPhail was born Nov. 18, 1935 in Calhoun City, Mississippi. He attended the University of Mississippi, where he earned a bachelor's degree in geology and a master's degree in geological engineering.

He worked for the Bureau of Reclamation for 21 years before serving as a staff engineer in the Office of the Assistant Secretary of the Interior for Water and Power.

On Dec. 21, 1977, the Department of Energy announced the establishment of Western Area Power Administration, and on June 18, 1978, McPhail was named the power marketing administration's first administrator.

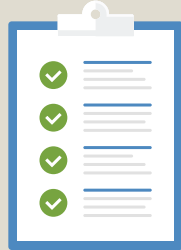
In 1984, he accepted a position as general manager and CEO of Basin Electric Power Cooperative in North Dakota, where he served until his retirement in 1999. In lieu of flowers, the family requests that donations be made to an Alzheimer's charity.



Take the FEVS by Dec. 3

All eligible WAPA employees are encouraged to take the Federal Employee Viewpoint Survey by Dec. 3. An email from **evdn@opm.gov** with the subject line, "2021 OPM Federal Employee Viewpoint Survey," should have been received by all eligible employees on Nov. 1.

WAPA has used FEVS feedback to address changes that employees wanted to see. These include creating the Leadership Development Program, introducing Maxiflex, producing town-hall meetings with the administrator, creating the Extended Leadership Team and more.



Reminder: Don't lose your leave

As the end of the calendar year approaches, remember that federal employees cannot accumulate more than 240 hours of leave. This includes employees on extended sick leave.

Unused leave may be carried over to the next year as long as it does not exceed the maximum of 240 hours. Any leave above that amount will be lost if it is not used.

As always, coordinate all time off with the appropriate supervisors and managers to ensure coverage during the winter holidays.



For questions or more information, contact fevs@hq.doe.gov

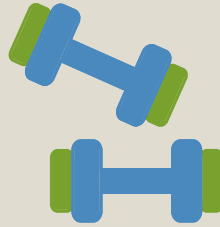


Contact your Human Resources Business Partner with any questions.



Fitness program reimbursement claims due Dec. 31

Federal employees who have gym memberships or participate in other fitness programs may be eligible for a reimbursement benefit. Employees may claim 50% reimbursement for qualified expenses up to \$1,000 for a maximum reimbursement of \$500.



Reimbursement is available to federal employees only. Family members or family memberships do not qualify. Term limits are capped at 12 months, meaning that receipts must reflect a 12-month period for program participation or less. Fiscal year 2021 claims must be submitted by Dec. 31.

Expenses eligible for reimbursement include commercial gym memberships, instructed fitness class memberships and virtual fitness programs, such as Peloton or Beachbody. Ineligible expenses include the purchase of fitness equipment, pool passes, ski passes and other physical activities that are recreational in nature.

For more information and relevant forms, visit **myWAPA, Employee Resources, Fitness Program**



ICG debuts Open Mic forum

The Integrated Communications Group is launching a new Open Mic forum on Dec. 2 at 2 p.m. Mountain Time. The Open Mic was inspired by other utilities with successful integrated communications efforts to ensure broad understanding of WAPA's programs and initiatives.



Topics for this first virtual forum are being finalized, but currently include: Power Marketing 101; and North American Electric Reliability Corporation, Federal Energy Regulatory Commission and regional compliance.

Attendance information and additional details will be distributed WAPA-wide via email. All WAPA employees are welcome to attend. Contract employees who are interested in attending should confirm with their contract managers.

The ICG is also seeking volunteers for membership for a 2022-2024 term.

To volunteer or for questions, contact **Teresa Waugh** at waugh@wapa.gov



On-demand Modern Workplace training available

In October, WAPA launched Learning Pathways to provide employees with on-demand delivery of up-to-date Microsoft product training for Modern Workplace tools such as Teams, SharePoint, Forms, Planner, Word, Excel and PowerPoint.

This training is tailored to reflect WAPA's customizations for Modern Workplace tools. Microsoft provides updated content every 90 days.

To access the training, select the Learning Pathways icon on the left-side navigation rail within Teams. From there, navigate to specific products or topics and find demonstration videos, instructions and additional resources.

For more information about Learning Pathways, see the Oct. 14 "Training available for Modern Workplace" post in the myWAPA newsroom.

If you experience issues with Learning Pathways, contact the WAPA IT Call Center via WITCC Chat or at witcc@wapa.gov



Have news to share through *Closed Circuit*?

If you have news to share about accomplishments, initiatives or interesting developments within your region or program, contact *Closed Circuit* Editor **Philip Reed** at reed@wapa.gov.